

CLAIMS

1. A two-channel audio signal controller having a surround circuit, characterized by comprising:

5 a surround circuit capable of switching on and off a surround effect;

band-pass circuits each interposed into a corresponding channel to switch between a band-pass on state where it provides such an output that a midrange of an audio signal
10 frequency band has a higher gain than a bass and a treble ranges and a band-pass off state where a frequency characteristic is flat between the bass range and the treble range; and

a controlling section for interlockingly switching on and off said surround circuit and said band-pass circuits.

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2. A two-channel audio signal controller having a surround circuit, characterized by comprising:

a surround circuit capable of switching on and off a surround effect;

20 band-pass circuits each interposed into a corresponding channel to switch between a band-pass on state where it provides such an output that a midrange of an audio signal frequency band has a lower gain than a bass and a treble ranges and a band-pass off state where a frequency characteristic
25 is flat between the bass range and the treble range;

speakers each connected to an output of a corresponding one of said channels for executing electric-acoustic conversions and executing more efficient electric-acoustic conversions for a midrange than for the bass and treble ranges;
30 and

a controlling section for interlockingly switching on and off said surround circuit and said band-pass circuits.

a 3. The audio signal controller according to Claim 1 ~~or 2~~, characterized in that the midrange of the audio signal frequency band is set at a band between 400 Hz and 7 kHz.

a 5 4. A reproducing device having the audio signal controller set forth in Claim 1 ~~or 2~~ to reproduce audio data from a recording medium having the audio data recorded thereon with video data, characterized in that:

the reproducing device has means for reproducing audio data read from the recording medium; and

10 said controlling section interlockingly switches on and off said surround circuit and said band-pass circuits based on the audio data read from the recording medium by the reproduction means.

15 5. The reproducing device according to Claim 4, characterized in that said controlling section interlockingly switches on said surround circuit and said band-pass circuits if said audio data are determined to be sound-compressed multichannel data.

20 6. The reproducing device according to Claim 5, characterized in that the multichannel audio data are dolby digital (AC-3) or dts audio data.

25 7. A reproducing device capable of reproducing as a recording medium, a DVD having at least video data and multichannel audio data recorded thereon, comprising:

30 disc determining means for determining whether a disc used as a recording medium is a DVD or another disc;

a decoder for extracting multichannel audio data from the recording medium and downmixing, before outputting, the data into two channels regardless of the number of channels in the original data;

determining means for determining the type of the extracted multichannel audio data;

a surround circuit capable of switching on and off a surround effect;

5 band-pass circuits each interposed into a corresponding channel to switch between a band-pass on state where it provides such an output that a midrange of an audio signal frequency band has a higher gain than a bass and a treble ranges and a band-pass off state where a frequency characteristic
10 is flat between the bass range and the treble range; and

 a controlling section for interlockingly switching on and off said surround circuit and said band-pass circuits, characterized in that said controlling section interlockingly switches on said surround circuit and said
15 band-pass circuits if it determines the audio data to be multichannel audio data.